

REMARKS

The Office Action mailed September 1, 2006, has been received and reviewed. Claims 1 and 3 through 23 are currently pending in the application. Claims 15 through 20 have been withdrawn from consideration as being drawn to a non-elected invention. Claims 1 through 14 and 21 through 24 stand rejected. Applicants have amended claims 1, 3, 21, and 23. A portion of the subject matter of claim 2 has been incorporated into claim 1 and claim 2 has been canceled. A portion of the subject matter of claim 23 has been incorporated into claim 21. Claim 24 has been canceled. All amendments and cancellations are made without prejudice or disclaimer. Applicants respectfully request reconsideration of the application as amended herein.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent 6,936,212 to Crawford and Further in View of U.S. Patent 6,253,116 to Zhang *et al.*

Claims 1 through 14, 21, 22, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Crawford (U.S. Patent 6,936,212) in view of Zhang *et al.* (U.S. Patent 6,253,116) (hereinafter “Zhang”). Claims 2 and 24 have been canceled thereby mooted the rejection as to those claims. Applicants respectfully traverse the rejection of the remaining claims, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Regarding independent claim 1, Applicants assert that Crawford and Zhang do not teach or suggest all of the claim limitations to establish a *prima facie* case of obviousness regarding the claimed invention under 35 U.S.C. § 103. Neither reference teaches or suggests the claim limitation of the claimed invention reciting “the support material comprising a fusible crystal hydrate” as recited in amended claim 1. The Examiner acknowledged that

Crawford does not teach this limitation. *Office Action mailed September 1, 2006, page 4.*

Zhang discloses water or brine (*Column 5, lines 12-15*), but not fusible crystal hydrates.

Regarding independent claim 21, subject matter from claim 23 has been incorporated into claim 21. Amended claim 21 recites “removing the build support by washing with water to produce the solid three-dimensional object.” The Examiner acknowledged that Crawford does not teach this limitation. *Office Action mailed September 1, 2006, page 5.* The Examiner did not allege that Zhang teaches this limitation.

Therefore, for at least these reasons, a *prima facie* case of obviousness under 35 U.S.C. § 103 has not been established for amended claims 1 and 21.

Claims 3 through 14 and 22 are non-obvious for at least the reason of depending from non-obvious base claims.

Obviousness Rejection Based on U.S. Patent 6,936,212 to Crawford and Further in View of U.S. Patent 6,437,034 to Lombardi *et al.*

Claims 1, 4 through 14, and 21 through 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Crawford (U.S. Patent 6,936,212) in view of Lombardi *et al.* (U.S. Patent 6,437,034) (hereinafter “Lombardi”). Claim 24 has been canceled thereby mooting the rejection as to that claim. Applicants respectfully traverse the rejection of the remaining claims, as hereinafter set forth.

Regarding independent claim 1, Applicants assert that Crawford and Lombardi do not teach or suggest all of the claim limitations to establish a *prima facie* case of obviousness regarding the claimed invention under 35 U.S.C. § 103. Neither reference teaches or suggests the claim limitation of the claimed invention reciting “the support material comprising a fusible crystal hydrate” as recited in amended claim 1. The Examiner acknowledged that Crawford does not teach this limitation. *Office Action mailed September 1, 2006, page 4.* The Examiner did not allege that Lombardi teaches this limitation.

Regarding independent claim 21, neither reference teaches or suggests the claim limitation of the claimed invention reciting “the support material comprising at least one of water and a fusible, water-containing substance” as recited in claim 1. The Examiner acknowledged that Crawford does not teach that the support material is water or a fusible water-containing substance. *Office Action mailed September 1, 2006, page 5.* The Examiner alleged that the PEO of Lombardi is hydrophilic and therefore a water-containing substance.

Id. at page 6. Lombardi discloses that PEO has high water solubility. *Column 3, lines 4-6.* However, that only means that PEO “can be easily washed away with water,” not that the PEO contains water. *Column 3, lines 7-9.* Lombardi does not disclose that the PEO contains water. Lombardi discloses that the PEO may include inorganic and inert fillers. *Column 4, lines 16-26.*

Lombardi teaches away from PEO containing water. In the preferred formulations, the PEO “is highly tacky in humid atmosphere, which makes it difficult to uniformly spool as feed material” through an extruder. *Column 6, lines 42-25; column 8, lines 28-31.* Clearly, the containment of water with the PEO would create tackiness problems. Therefore, Lombardi teaches away from the PEO containing any water.

Therefore, for at least these reasons, a *prima facie* case of obviousness under 35 U.S.C. § 103 has not been established for amended claims 1 and 21.

Claims 4 through 14, 22, and 23 are non-obvious for at least the reason of depending from non-obvious base claims.

CONCLUSION

Claims 1 and 3 through 23 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, the Examiner is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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